

Discipline	Sensors and Signal Conditioning	code: 5510	Semester – /winter/
Specialty	Electronics		
ECTS credits: <b>6</b>	Form of assessment: Exam		
Lecturer	Associate Professor, PhD Emilian Bekov Room: 602E Phone: +359 52 383 340 E-mail: emilian.bekov@tu-varna.bg		
Department	Department of Electronics and Microelectronics		
Faculty	Faculty of Computer Sciences and Automation		
Learning objectives			
The course “Sensors and Signal Conditioning” is dedicated to the study of the principles of use, types and main applications of sensors. Sensors for temperature, mechanical stress, pressure, object position, speed, acceleration and others are examined. The students are introduced to electronic schematics and devices used to operate with and measure readings from different types of sensors.			
CONTENTS:			
	Training Area	Hours lectures	Hours seminar exercises
	Introduction to sensors and sensor technology.	3	3
	Temperature sensors.	3	3
	Sensor for measuring mechanical force.	3	3
	Pressure sensors.	3	3
	Sensors for position, speed and acceleration.	3	3
	Flow sensors.	3	3
	Sensors used for object detection.	3	3
	Sensors for meteorological measurements.	3	3
	Sensors for biomedical measurements.	3	3
	Sensor interfaces.	3	3
	<b>TOTAL: 60 h</b>	<b>30</b>	<b>30</b>